

IN THE CLAIMS:

Kindly amend claims 1-13 and add new claims 15-36 as follows:

The present listing of claims replaces all prior versions, and listings, of claims in the instant application.

Listing of Claims:

1. (Currently amended) A composition for stabilizing or preserving biomolecules, comprising:

at least one non-reducing disaccharide; and

at least one protein or polypeptide of the LEA class.
2. (Currently amended) A composition according to claim 1, wherein the non-reducing disaccharide is selected from the group consisting of trehalose (D-glucopyranosyl-D-glucopyranoside), sucrose (β -D-fructofuranosyl- α -D-glucopyranoside), as well as derivatives thereof.
3. (Currently amended) A composition according to claim 1-~~or~~ 2, wherein the non-reducing disaccharide is trehalose.
4. (Currently amended) A composition according to ~~any of claims 1 to 3,~~
wherein the at least one protein or polypeptide of the LEA class has a motif comprising

eleven amino acids, which is characterized by the following general formula (SEQ ID NO 1):

(1)-(2)-(3)-(4)-(5)-(6)-(7)-(8)-(9)-(10)-E,

wherein

- (1) signifies K or T,
- (2) signifies A, G, K M or T,
- (3) signifies R, D, A, E, Q or K.
- (4) signifies E, K or S,
- (5) signifies T, F, Y or A,
- (6) signifies K, R, T or A,
- (7) signifies D, E or Q,
- (8) signifies S, R, Y or K,
- (9) signifies A or T, and
- (10) signifies G, A or R.

5. (Currently amended) A cComposition according to ~~any of the foregoing~~ claims 1, further comprising at least one protein or polypeptide of the LEA-subclass 3 with an amino acid sequence ~~that is~~ coded by a nucleotide sequence as deposited in GenBank under the accession number AF423069 or S39475.

6. (Currently amended) A cComposition according to ~~any of the foregoing~~ claims 1, ~~wherein~~ in which the at least one protein or polypeptide of the LEA subclass 3 has a motif comprising 11 amino acids selected from the group consisting of:

- (a) K-T-A-E-F-R-D-S-A-G-E (SEQ ID NO. 2),
- (b) K-G-Q-E-F-K-E-R-A-G-E (SEQ ID NO. 3),
- (c) K-A-E-E-T-K-Q-R-A-G-E (SEQ ID NO. 4),
- (d) K-M-D-E-T-K-Q-R-A-G-E (SEQ ID NO.5),
- (e) K-A-R-K-T-K-D-S-A-A-E (SEQ ID NO. 6),
- (f) K-A-K-E-Y-K-D-Y-T-A-E (SEQ ID NO. 7),
- (g) K-A-R-E-T-T-E-K-A-R-E (SEQ ID NO. 8), and
- (h) T-K-D-S-A-A-E-K-A-R-E (SEQ ID NO. 9).

7. (Currently amended) A cComposition according to ~~any of the foregoing~~ claims 1, comprising ~~the components of the non-reducing disaccharide and the protein or~~ peptide of the LEA class in respective quantities of from 0.01 to 15, ~~or, as the case may be,~~ 0.00001 to 1 weight percent, ~~in each case~~ in relation to athe ready-to-use solution.

8. (Currently amended) A pProcess for stabilizing or preserving biomolecules comprising the steps of:

providing a composition in accordance with claim 1; and

incubating a biomolecule ~~in which the molecule to be protected is incubated in~~ thea composition according to ~~any of claims 1 to 7.~~

9. (Currently amended) A pProcess for stabilizing or preserving biomolecules immobilized on surfaces comprising the steps of: ~~in which these~~

providing loaded surfaces comprising biomolecules immobilized on surfaces; and

~~are covered~~ the loaded surfaces with the composition as defined in ~~any of~~
claims 1 ~~to~~ 7.

10. (Currently amended) A sSurface with immobilized and stabilized or
preserved biomolecules, obtained by the process as defined in claim 9.

11. (Currently amended) A sSurface, covered with the composition as defined
in ~~any of~~ claims 1 ~~to~~ 7.

12. (Currently amended) A sSurface according to claim 10 ~~or 11~~ as a
component of an analytic and/or diagnostic device.

13. (Currently amended) An analytic and/or diagnostic device, comprising a
surface as defined in ~~any of~~ claims 1 10 to 12.

14. (Original) A device according to claim 13 selected from the group
consisting of biochips, sensor chips, microtiter plates, test tubes and culture dishes.

15. (NEW) A composition according to claim 1, comprising the non-reducing
disaccharide and the protein or peptide of the LEA class in respective quantities of from
0.00001 to 1 weight percent in relation to a ready-to-use solution.

16. (NEW) A process for stabilizing or preserving biomolecules comprising the steps of:

- (a) immobilizing biomolecules on surfaces; and
- (b) covering the surfaces with a composition comprising:
 - i. at least one non-reducing disaccharide; and
 - ii. at least one protein or polypeptide of the LEA class.

17. (NEW) A process according to claim 16, wherein the non-reducing disaccharide is selected from the group consisting of trehalose (D-glucopyranosyl-D-glucopyranoside), sucrose (β -D-fructofuranosyl- α -D-glucopyranoside), as well as derivatives thereof.

18. (NEW) A process according to claim 16, wherein the non-reducing disaccharide is trehalose.

19. (NEW) A process according to claim 16, wherein the at least one protein or polypeptide of the LEA class has a motif comprising eleven amino acids, which is characterized by the following general formula (SEQ ID NO 1):

(1)-(2)-(3)-(4)-(5)-(6)-(7)-(8)-(9)-(10)-E,

wherein

- (1) signifies K or T,
- (2) signifies A, G, K M or T,
- (3) signifies R, D, A, E, Q or K.

- (4) signifies E, K or S,
- (5) signifies T, F, Y or A,
- (6) signifies K, R, T or A,
- (7) signifies D, E or Q,
- (8) signifies S, R, Y or K,
- (9) signifies A or T, and
- (10) signifies G, A or R.

20. (NEW) A process according to claim 16, further comprising at least one protein or polypeptide of the LEA-subclass 3 with an amino acid sequence coded by a nucleotide sequence as deposited in GenBank under the accession number AF423069 or S39475.

21. (NEW) A process according to claim 16, wherein the at least one protein or polypeptide of the LEA subclass 3 has a motif comprising 11 amino acids selected from the group consisting of:

- (a) K-T-A-E-F-R-D-S-A-G-E (SEQ ID NO. 2),
- (b) K-G-Q-E-F-K-E-R-A-G-E (SEQ ID NO. 3),
- (c) K-A-E-E-T-K-Q-R-A-G-E (SEQ ID NO. 4),
- (d) K-M-D-E-T-K-Q-R-A-G-E (SEQ ID NO.5),
- (e) K-A-R-K-T-K-D-S-A-A-E (SEQ ID NO. 6),
- (f) K-A-K-E-Y-K-D-Y-T-A-E (SEQ ID NO. 7),
- (g) K-A-R-E-T-T-E-K-A-R-E (SEQ ID NO. 8), and

(h) T-K-D-S-A-A-E-K-A-R-E (SEQ ID NO. 9).

22. (NEW) A process according to claim 16, comprising the non-reducing disaccharide and the protein or peptide of the LEA class in respective quantities of from 0.01 to 15 weight percent in relation to a ready-to-use solution.

23. (NEW) A process according to claim 16, comprising the non-reducing disaccharide and the protein or peptide of the LEA class in respective quantities of from 0.00001 to 1 weight percent in relation to a ready-to-use solution.

24. (NEW) A process for the production of a surface with immobilized and stabilized, or alternatively preserved, biomolecules comprising the steps of:

(a) providing a surface with biomolecules to be immobilized and stabilized, or alternatively preserved; and

(b) covering the biomolecules with a composition comprising:

- i. at least one non-reducing disaccharide; and
- ii. at least one protein or polypeptide of the LEA class.

25. (NEW) A surface with immobilized and stabilized, or alternatively preserved, biomolecules obtained through the process as defined by claim 24.

26. (NEW) A component of an analytical and/or diagnostic device, wherein the component is a surface with immobilized and stabilized, or alternatively preserved, biomolecules covered with a composition, the composition comprising:

at least one non-reducing disaccharide; and

at least one protein or polypeptide of the LEA class.

27. (NEW) A surface of a material selected from the group consisting of glass, quartz glass, quartz, silicon, polymers, nitrocellulose, nylon and micro fiber membranes, and paper, wherein the surface includes immobilized and stabilized, or alternatively preserved, biomolecules covered with a composition, the composition comprising:

at least one non-reducing disaccharide; and

at least one protein or polypeptide of the LEA class.

28. (NEW) A surface according to claim 27, comprising the non-reducing disaccharide and the protein or peptide of the LEA class in respective quantities of from 0.01 to 15 weight percent in relation to a ready-to-use solution.

29. (NEW) A surface according to claim 27, comprising the non-reducing disaccharide and the protein or peptide of the LEA class in respective quantities of from 0.00001 to 1 weight percent in relation to a ready-to-use solution.

30. (NEW) A surface according to claim 28, wherein the non-reducing disaccharide is selected from the group consisting of trehalose (D-glucopyranosyl-D-

glucopyranoside), sucrose (β -D-fructofuranosyl- α -D-glucopyranoside), as well as derivatives thereof.

31. (NEW) A surface according to claim 29, wherein the non-reducing disaccharide is trehalose.

32. (NEW) A surface according to claim 27, wherein the at least one protein or polypeptide of the LEA class has a motif comprising eleven amino acids, which is characterized by the following general formula (SEQ ID NO 1):

(1)-(2)-(3)-(4)-(5)-(6)-(7)-(8)-(9)-(10)-E,

wherein

- (1) signifies K or T,
- (2) signifies A, G, K M or T,
- (3) signifies R, D, A, E, Q or K.
- (4) signifies E, K or S,
- (5) signifies T, F, Y or A,
- (6) signifies K, R, T or A,
- (7) signifies D, E or Q,
- (8) signifies S, R, Y or K,
- (9) signifies A or T, and
- (10) signifies G, A or R.

33. (NEW) A surface according to claim 27, wherein the composition comprises at least one protein or polypeptide of the LEA-subclass 3 with an amino acid sequence coded by a nucleotide sequence as deposited in GenBank under the accession number AF423069 or S39475.

34. (NEW) A surface according to claim 27, wherein the at least one protein or polypeptide of the LEA subclass 3 has a motif comprising 11 amino acids selected from the group consisting of:

- (a) K-T-A-E-F-R-D-S-A-G-E (SEQ ID NO. 2),
- (b) K-G-Q-E-F-K-E-R-A-G-E (SEQ ID NO. 3),
- (c) K-A-E-E-T-K-Q-R-A-G-E (SEQ ID NO. 4),
- (d) K-M-D-E-T-K-Q-R-A-G-E (SEQ ID NO.5),
- (e) K-A-R-K-T-K-D-S-A-A-E (SEQ ID NO. 6),
- (f) K-A-K-E-Y-K-D-Y-T-A-E (SEQ ID NO. 7),
- (g) K-A-R-E-T-T-E-K-A-R-E (SEQ ID NO. 8), and
- (h) T-K-D-S-A-A-E-K-A-R-E (SEQ ID NO. 9).

35. (NEW) An analytical and/or diagnostic device, comprising a surface as defined in claim 27.

36. (NEW) A device according to claim 35 selected from the group consisting of biochips, sensor chips, microtiter plates, test tubes and culture dishes.